Build small nuclear reactors for battlefield power

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by Andy Erickson

There's not much the U.S. military does that's more dangerous than trucking fuel through a war zone. In 2009, the Army found that one soldier died for every 24 fuel convoys in Afghanistan. So if a better way could be found to generate electricity at remote bases — that's what most of the fuel is used for — it could greatly reduce the risks to our military.

A solution could be a new micro-nuclear reactor being developed by Los Alamos National Laboratory and the Westinghouse power company. Built around heat-pipe technology, this inherently safe microreactor has no cooling water or pumps that can fail, uses passive regulation systems so that it cannot melt down, and can generate at least 1 megawatt of safe, reliable power for 10 years or more. A megawatt is enough electricity for roughly a military brigade, some 1,500 to 4,000 soldiers.

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